AUGUST 1986

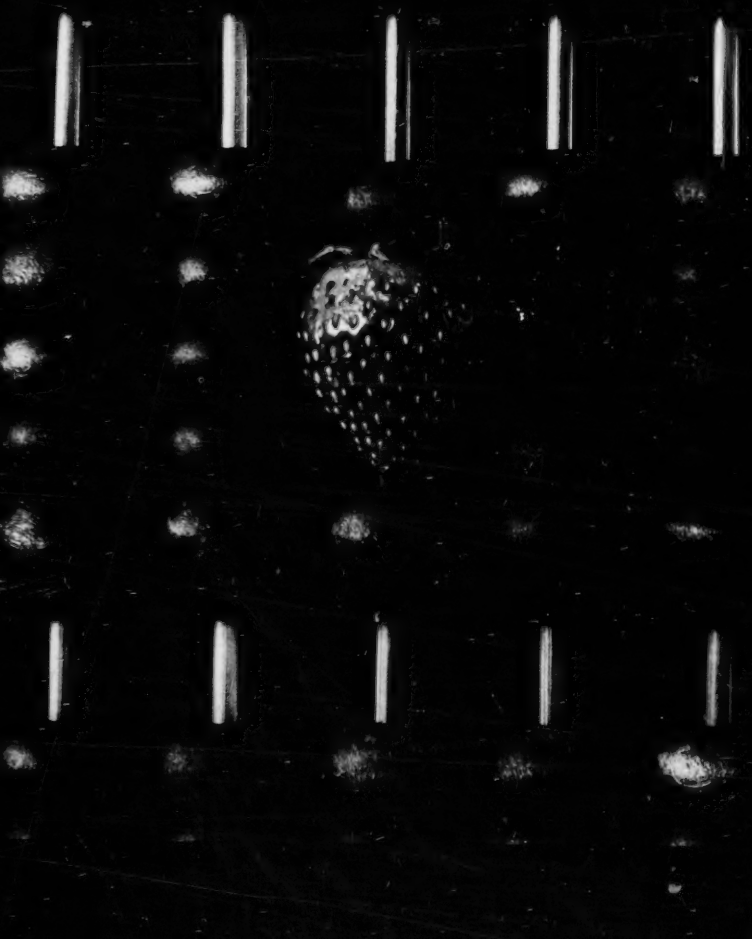
Chilton's

Food Engineering

In this issue: FOOD PACKAGING

$3.00

Annual STATE OF THE FOOD INDUSTRY



THE WAY WE ARE

Our seventh review of the dynamics of the various food business segments holds part of the key for understanding where processing is headed in the second half of the decade.

SHOW ME

A report, category by category, on the recent IFT Show.

BACK TO BASICS

Special emphasis on gums and other thickeners.

Chilton's Food Engineering

COVER STORY

Food Engineering's coverage of the State of the Industry brings you up-to-date on issues and concerns for processors looking to stay profitable in an increasingly more competitive marketplace.

Permission to photocopy for internal use or the internal use of specific clients is granted by Chilton Company for libraries and other users registered with the Copyright Clearance Center (CCC), provided that the base fee of $1.00 per copy of the article, plus 25¢ per page is paid directly to the CCC, 21 Congress St., Salem, MA 01970. Special requests should be addressed to The Editor. (0193-323X/65 $1.00 + 25¢)

FOOD ENGINEERING® (ISSN 0193-323X) August 1986, Vol. 58, No. 8. Published monthly by Chilton Company, Chilton Way, Radnor, Pa. 19089 (Telephone 215/964-4000). Chilton Co. is a division of American Broadcasting Companies, Inc., New York, N.Y. Second Class Postage Paid at Wayne, Pa. 19087 and additional mailing offices. Title registered in U.S. Patent Office ™Chilton Company, 1986. All rights reserved.

POSTMASTER: Send form 3579 to Food Engineering, Post Office Box Number 2035, Radnor, PA 19089.

News

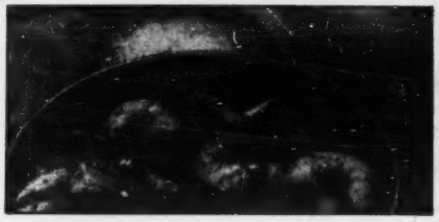
16 Washington Report
When Supreme Court Justice Sandra Day O'Connor reversed an Appeals Court decision she upheld FDA's system of controlling the amount of contaminants in the food supply. Also covered: Close-down of Radiation Technology facility; Senator Orrin Hatch on food safety reform.

21 Events
A major corporate battlefield has been the marketing and acquisition struggles between soda manufacturers. Now the Federal government has taken steps to block some planned acquisitions. Does peace lie ahead?

27 Corporate Strategies
Dart & Kraft are splitting into two separate companies; Coca-Cola continues its acquisition of bottlers; Cadbury makes acquisition.

Departments

6 In This Issue
10 Calendar
13 Editorial
16 News/Washington
21 News/Events
27 Corporate Strategies
37 Marketplace
202 New In Print
205 People



SEASONING BLENDS: PAGE 37

Features

64 State of the Food Industry
Food Engineering takes its annual look (our seventh) at how the food industry is faring—what's happened, and what's forecast to happen. Each segment of the industry is broken down and analyzed by FE editors.

90 Ingredients Report—IFT '86
Walk the aisles of the annual convention of the Institute of Food Technologists with *FE* editors for a category-by-category look at who was there and what was exhibited, as well as an analysis of trends within the industry.

110 Gums & Thickeners
New gum applications focus on replacing fats in low calorie foods and gum and gum/starch blends substituting for scarce gum arabic. New functionalities and newly-discovered nutritional benefits of gums are stirring new product development.

INGREDIENTS REPORT: PAGE 90

Food Packaging

46 Aseptic Packaging
Aseptipak '86 highlighted several developments both in aseptic packaging and areas affecting aseptic packaging.

50 Recloseable Tab
This pressure-sensitive recloseable tab helps preserve product freshness once the laminated, protective package is open.

52 Aseptic System
Ex-Cell-O's form/fill/seal system handles a new, patented 64-oz. carton made of pre-formed paperboard-based blanks.

54 Computer Design
At Compupac attendees explored the potential of using computers for package design and to solve packaging problems.

58 Freezable Cups
Shipped and sold at ambient temperatures, these containers produce frozen cocktails in the consumer's freezer.

59 Trendwatch
Bill LeMaire discusses the "Big Mo"—momentum—in packaging trends.

62 Literature

RECLOSEABLE TAB: PAGE 50

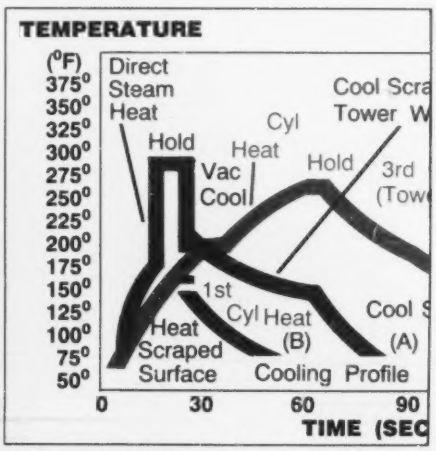
New Equipment

163 Processing Equipment
171 Handling & Distribution
178 Instruments & Controls
187 Packaging Equipment
194 Sanitation & Maintenance

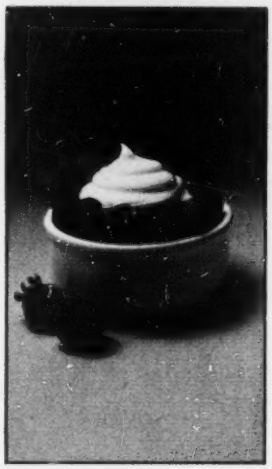
Supply Line

Field Reports

118 Continuous UHT processing
120 Mobile bioreactor for on-site use
123 Reliability in product weighing
124 Precision filtering for ales
128 Bulk intermodal transportation
134 Computerized refrigeration system
139 Product line efficiency by computer
140 Accurate loading of railcars
142 Reducing steam system noise
145 New heat exchanger design
146 Tilt-up wall panels reduce costs
149 Modular motor controls cut costs
150 Epoxy resurfacing of floor



UHT PROCESSING: PAGE 118



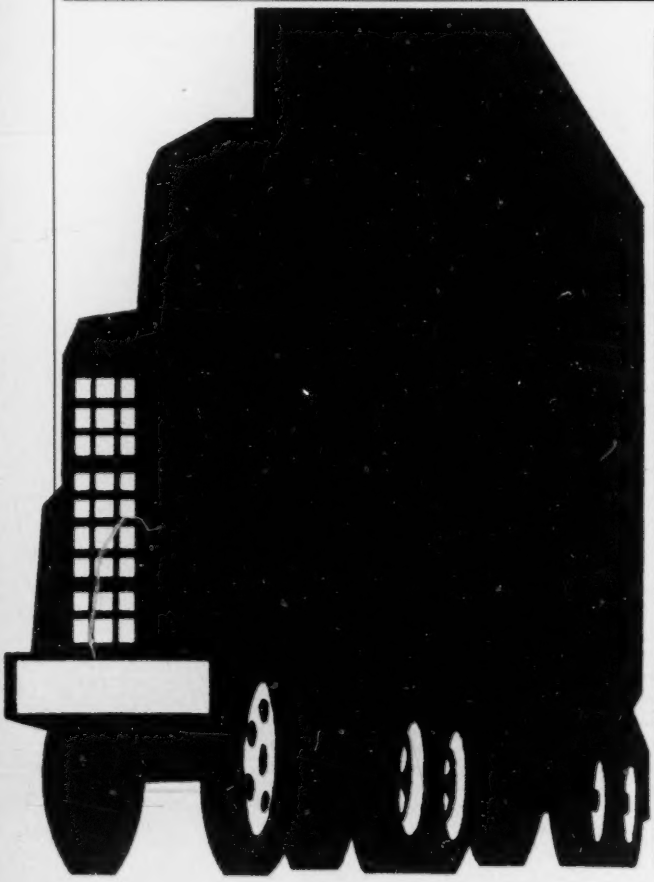
Special Emphasis

GUMS & THICKENERS:
This month's Special Emphasis section highlights the changing trends in and uses of gums and thickeners. New gum applications are giving product development people something new to stir their creativity.

Pages 110 to 115

SURVIVING A STRONG MARKET

Food stocks in 1985 and 1986 have been stronger than ever. But stocks don't tell the whole story of what lies ahead for the food processor in a marketplace becoming more and more competitive.



During 1985, the food industry demonstrated why it has become so attractive for investors and mergers/acquisitions specialists over the past several years – it is steady, predictable, and not prone to the kinds of cyclicality other manufacturing industries experience. Growth in '85 ran at about 1.7 percent when adjusted for inflation and at a total shipment value of $307.4 billion.

The continuing strength of the market was reflected in stock performance. For the fifth consecutive year, the companies that make up the Standard & Poor's food index outperformed the S&P 400. In fact, 1985 was the year in which the performance of the food stocks index actually passed the S&P 400 in absolute terms, as well as relative performance.

As the Standard & Poor's Industry Surveys reported: "Generally speaking, food processors have managed to forge ahead from an earnings standpoint, while averting any major disasters. Clearly, lower costs of certain raw materials have helped. But other costs also have been favorable. Declining interest rates and energy prices, along with only small increases in wage and packaging expenses, more than offset higher marketing costs in 1985. . . . Similar factors, plus the benefit of a weaker dollar (for those companies with a substantial exposure to foreign markets), should lead to an even better showing in 1986, with the food group projected to post a 19.7% EPS gain."

Charles Haberstroh, Editor-in-Chief; Kevin Hannigan, Features Editor; Dianne Taylor, Contributing Editor; Charles Morris, Midwest Editor; Ann Przybyla, Technical Editor.

MERGERS/ACQUISITIONS SCORECARD, 1984-1985

PLAYERS	1984	1985
Total Activity	583	658
Selected Segments:		
Food Processors	89	95
Diversified Firms with Food Interests	48	39
Meat Packers	8	5
Poultry Processors	11	12
Soft Drink Bottlers	14	14
Wholesalers	36	39
Dairy Processors	13	21
Packaging Suppliers	25	26
Foreign Firms Buying U.S. Firms	40	55

Source: The Food Institute

NEW PRODUCT INTRODUCTIONS

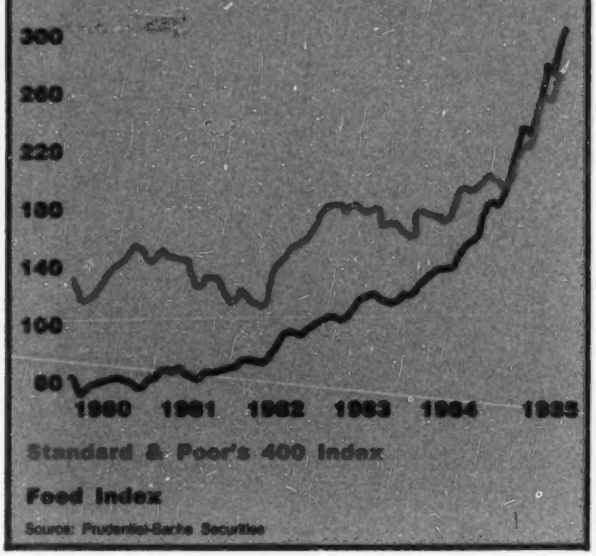
Doubled since the seventies and still going strong.

Average	
1970-81	1,026
1982	1,510
1983	1,803
1984	1,988
1985	2,206

Source: Dancer Fitzgerald Sample

FOOD STOCK PERFORMANCE

A long, hard climb, followed by a vertical takeoff.



Source: Prudential-Bache Securities

There is little doubt that two other factors will help to keep EPS fat. For one thing, the new tax bill (if it goes into effect intact) will raise bottom lines significantly because of the large real tax rate food companies currently pay. The other factor will be divestiture, as food conglomerates begin to spin off their less stellar divisions.

Apparently, while many have their doubts about the efficacy of mega-mergers, the 1985 acquisitions of Nabisco by R.J.Reynolds, of General Foods by Philip Morris, and of Beatrice by Kohlberg Kravis Roberts & Co. did push stock prices up, having a ruboff effect on the attractiveness of food stocks generally.

But more than anything else, it was the matter that once again the food stocks proved their dependability.

If stock prices seem to bode a bright short-term future for the industry, improvement in companies' performances is still going to be largely a matter of trench warfare and very careful positioning. Per capita food consumption has been increasing very little. For example, dry grocery tonnage, as measured by Selling Areas-Marketing Inc. (SAMI), shows an average growth of less than one-half of one percent per year since 1980. Refrigerated and frozen products, generally considered one of the important growth categories over the last five years, have done better, but have been averaging only about 2.2 percent according to SAMI. True, this 2.2 percent increase has been delivering about a 7.3 percent average increase in doliars generated, largely because of the increase in upscale products which deliver more dollars per ton. But even that number is starting to taper off. Even though average dollar growth has been 7.3 percent, it went from 10 percent five years ago to 4 percent in 1985.

This doesn't mean anyone has to despair about the food

(Continued on page 66)

WHOLESALE GROCERS' SALES (in billions)

1982	$174.7
1983	190.3
1984	208.9
1985	216.1

Source: The Food Institute

FOOD STORE SALES (in billions)

1982	$245.3
1983	254.9
1984	270.4
1985	282.2

Source: The Food Institute

GROCERY STORE PRICE INDEX (1982=100)

1982	100.0
1983	101.5
1984	105.1
1985	107.9

Source: The Food Institute

EATING & DRINKING PLACE PRICE INDEX (1982=100)

1982	100.0
1983	104.3
1984	108.5
1985	112.6

Source: The Food Institute

PRODUCER PRICE INDEX FOR FINISHED CONSUMER FOODS (1967=100)

1982	259.2
1983	261.8
1984	273.3
1985	271.4

Source: Bureau of Labor Statistics

FARM PRICE INDEX (1977=100)

1982	133.2
1983	134.7
1984	141.9
1985	128.4

Source: USDA

business, but it does mean that more is going to have to be spent in market research, in developing a talent for exploring and exploiting niche markets, in regionalizing marketing, and in advertising.

For one thing, the trend toward consolidation goes on. This means that the lone food processor will increasingly be competing against companies with more resources, diversification, and market access than he possesses. The big mergers get a lot of attention, as they should, considering the fact that four conglomerates control probably 15 percent of the value of all industry shipments. But in a rush to focus on the major mergers, processors should not lose sight of the fact that for the last ten years the trend in the industry generally has been toward realignment of businesses through mergers and acquisitions. For example, between 1976 and 1985, according to The Food Institute, there were 5,680 merger and acquisition activities – an average of 568 per year. In just the food processors area, between 1980 and 1985 there were 499, or 83 per year. There are no indications that this trend will slow down.

At the same time, market share will be the name of the game. Processors cannot depend on increasing the size of the market. This will mean more expenses on the marketing side, which in turn will mean that companies not prepared to spend more on marketing will see themselves getting squeezed.

Lastly, if the 2,206 new products that Dancer Fitzgerald Sample charted as they entered the market in 1985 were an indication, there is not going to be any abatement in product technology, packaging creativity, or marketing aggressiveness. And even though new supermarket construction is showing a clear trend to more floor space and more sophisticated product selection, the competition, particularly with the introduction of direct product profitability (DPP), will only get more intense. With DPP the retailer now has a way to quantify his decision-making; so, in addition to everything else, the manufacturer will have to meet hard and fast demands for a certain numbers profile on his products.

In the face of this ever-more-difficult competition, several strategies will continue to evolve. For one thing, target and niche marketing will become more important than ever. Product differentiation and development by region, or demographic and even psychographic group will be essential. Also important will be looking for improvements in productivity. This will come partly through processors reassessing manufacturing operations; partly by choosing suppliers of machinery and ingredients who can help processors be more productive in their operations on an ongoing basis rather than just being the up front "lowest cost" supplier; and partly by continuing to make sure their businesses are carefully defined.

The market in 1986 is tougher than it was in 1985, and will be tougher in 1987. The key is to be tougher than the market – not always easy, but always necessary.

Source: U.S. Industrial Outlook 1986

JUICES, SOFT DRINKS

There's a lot to drink in the U.S. these days. In fact, there may be too much. The flurry of new product activity in 1984 has created a glut of drinks on supermarket shelves, and many in the beverage industry expect the competition will be too tough for some brands. Bottled water, for example, is still a fast-growing beverage market with profit margins running as high as 25 percent. But the many brands now available suggest that profits may have to be shaved to buy shelf space.

In carbonated soft drink marketing, the emphasis has been on new products, discounting and heavy advertising. In some cases, as with flavored colas and chocolate-type soft drinks, the new products have become new categories. The positioning of juice-containing soft drinks such as Pepsico's *Slice*, for example, as a healthy modern beverage in several fruit-juice-containing versions—as opposed to traditional "bellywash"—prompted a horde of similar products. Now, juice-containing carbonated soft drinks account for nearly 3 percent of carbonated beverage sales and should grow to about 15 percent by 1990.

The continuing interest in dieting, fitness and health, say some industry experts, is the primary cause for the rise of the beverage industry since about 1975. The use of aspartame in new diet drinks, for instance, actually expanded the total market, bringing in new consumers who wouldn't touch carbonated beverages before that. Presumably, these "new" consumers previously drank still-drinks such as *Kool-Aid* because they could add whichever sweetener they preferred. Diet soft drinks should continue to grow over the next decade, and plateau at about 33 percent of the total carbonated drink market.

In 1985, reports Cornelius F. Kenney of the Commerce Department, Office of Consumer Goods, soft drink demand increased because of new product introductions, favorable demographics, and improved economic conditions. The value of total bottled and canned soft drink industry shipments reached about $20 billion. That's about a 3.4 percent rise in real dollars, following a 2.4 percent rise in 1984. By comparison, the carbonated soft drink industry had been relatively stagnant during the 1980-84 period.

Per capita consumption of soft drinks increased about 5.5 percent in 1985, to 43.1 gallons. But most of this increase belonged to *Pepsi-Cola* and *Coca-Cola*. There was considerable new-product activity in 1985, but the two giant cola companies drew the attention of both media and consumers via marketing moves, on-again/off-again acquisitions, and clever television commercials. Most lesser-known brands, overwhelmed by heavy advertising, lost market share in 1985 and resorted to discounting to stay alive.

Meanwhile, the total aseptic juice drink market passed the $600-million mark at retail in 1985. Current trends to increase this figure include early efforts to market aseptic packs through vending machines. Aseptically packaged drinks are tending to higher juice content, also. In fact, says one major packer, you can expect the little paper/plastic packs to go to 50 percent juice soon—followed in time by 100-percent-juice packs. His thinking? Flavored and 10-percent-juice drinks are acceptable for children, but not for adults. They're ideal, for example, as school lunchbox drinks. To capture the larger adult market, however, and put aseptically packaged juices on the family table, the industry will have to increase the juice content. In Europe, for example, where per capita consumption of single-serve aseptic packs is more than six times the U.S. average, this evolutionary process has already taken place.

Changing Tastes for Soft Drinks

	Naturally Sweetened		Non-Caloric		Total	
	1983	1984	1983	1984	1983	1984
Colas	51.2	53.2	13.9	16.7	65.1	69.9
Lemon-Lime	9.6	10.0	2.3	2.8	11.9	12.8
Other Flavors	17.6	12.9	2.8	1.5	20.4	14.4
Mixers	1.1	1.2	0.8	0.9	1.9	2.1
Total Market	79.5%	77.3%	19.8%	21.9%	99.3%	99.2%

SOURCE: U.S. Dept. of Commerce

That's good news for primary suppliers of apple, orange and other popular juices. But not very cheering to their customers. It may increase the pressure on juice supplies, which already has been squeezed by a recent flood of new juice-containing products. Frozen fruit juice bars, for example, are one of the fastest growing of current trends. And, along with the introduction of juice-containing carbonated soft drinks, it may create a cost/supply problem for smaller packers. Thus, it seems likely, we can expect some shakeout in the aseptic drink category.

In 1986, says Commerce Department's Kenney, the value of bottled and canned soft drink product shipments should increase about 4.5 percent, in real dollars. Demand for soft drinks is expected to continue increasing, but at a somewhat lower rate, because of promotional efforts to secure firm market share for recent new products. Drink companies are likely to continue new product development efforts and increase promotional efforts. But packaged goods discounting practices are unlikely to abate. Thus, bottlers' margins will remain strained.

Total and per capita soft drink consumption should continue to rise, but at a slowing rate, during the next five years. Some observers believe that per capita consumption will top 50 gallons by about 1990. The value of soft drink industry shipments is forecast to increase about 2.3 percent a year.

SEAFOOD

Continuing the trend toward lighter foods, Americans in 1985 consumed a record 14.5 lbs. (net edible raw weight) per capita of seafood products, up 0.8 lbs. from an adjusted previous record of 13.7 lbs. per capita in 1984.

The National Marine Fisheries Service estimated value of U.S.-processed edible seafood at $4.7 billion—down 2 percent from 1984—while imports of edible seafood reached a record 2.8 billion lbs. (product weight) valued at $4.1 billion, up 12 percent in quantity and 9 percent in value over '84. U.S. firms exported 648.1 million lbs. of edible seafood products valued at $1 billion, an increase of 74 million lbs. and $168 million over last year.

Breakdown of U.S. production in 1985:—Raw fillets and steaks: 245.1 million lbs. valued at $436.6 million, down 7.2 million lbs. from 1984 but valued $26.2 million higher.

• Fish sticks and portions: 426.7 million lbs. worth $476.9 million, slightly up from 1984 production of 425.7 million lbs. which was valued, however, at $523.5 million.

• Breaded shrimp: 90.4 million lbs. valued at $347.9 million from 38 reporting plants, vs. 94.5 million lbs. valued at $369.4 million from 34 reporting plants last year. (Plants which report production quarterly accounted for 90 percent of 1985 production, says NFMS.)

• Canned products: 1.2 billion lbs. worth $1.4 billion, down 250 million lbs. and $185 million from 1984. Of this, 911.7 million lbs. valued at $1.3 billion was for human consumption, the balance for bait and pet food.

Breakdown of edible imports: 2.2 billion lbs. of fresh and frozen products valued at $3.5 billion; 414.4 million lbs. of canned products worth $465.8 million; 65.2 million lbs. of cured products valued at $75.1 million; 11.8 million lbs. of other products valued at $17.7 million. Just about every import category set a record: Shrimp, for example, reached a record 359.9 million lbs., accounting for 28 percent of total import value at $1.2 billion—down $63.4 million, however, from last year.

According to the NFMS report *Fisheries of the United States, 1985,* imports of analog surimi products last year amounted to 33.7 million lbs. valued at $48.2 million. Using data reported in Japanese media, however, NMFS staffers estimate 1985 imports of surimi analogs at 72.8 million lbs. Add to this 17.6 million lbs. of analogs made by U.S. producers from imported surimi and the total is 90.4 million lbs. Breakdown: Imitation crab legs from Japan, 68 million lbs.; other seafood analogs from Japan, 2.6 million lbs.; seafood analogs from South Korea, 2.2 million lbs.; analogs produced domestically from imported surimi, 17.6 million lbs. Applying the finished-product value of $1.40 per lb. used in the NFMS report would raise the 1985 value of surimi analogs to $126.5 million. Reason for the tremendous surge in analog crab legs: King crab landings plummeted from a 1980 record of 190 million lbs. to only 15.4 million lbs. last year, down 1.4 million lbs. from 1984.

The rate of surimi imports slowed late in 1985, however. Reasons: The fall of the dollar against the yen; limited availability of raw material to Japanese producers because of pollock quotas in U.S. fishing waters and a prohibition on fishing for pollock in Soviet waters; the FDA requirement for "imitation" labeling on surimi analogs. These factors boosted the price of raw surimi to $1.40 per lb. by mid-June, 1986.

According to Chris Mitchell of the Alaskan Fisheries Development Foundation, Alaskan production of raw surimi last year reached about 375 metric tons (825,000 lbs.) from a single plant at Kodiak, which is boosting capacity. With two more surimi plants plus a factory ship starting up this year at Dutch Harbor, Mitchell projects 1986 Alaskan surimi production at 7,000 to 8,000 metric tons (15.4 to 17.6 million lbs.).

While surimi allows low value fish to marketed in forms simulating high value products, cultured "farming" promises increased availability of high-value fish. Ecuador in 1984 shipped more than 46 million lbs. of cultured shrimp to the U.S.; cultured shrimp from the Philippines and Taiwan will soon follow. U.S. cultured shrimp is still in its infancy but the Commerce Dept. reports "about a dozen companies in five states" now active in shrimp culture. Farm raised salmon from Norway and New Zealand are making inroads. USDA reports U.S. farm raised catfish soaring 30 percent last year.

Seafood Highlights

	1985	1984
Per-capita consumption: (adjusted)	14.5 lbs.	13.7 lbs.
Fresh & frozen:	9.0 lbs.	8.5 lbs.
---Fillets & steaks	3.24 lbs.	2.99 lbs.
---Sticks & portions	1.76 lbs.	1.83 lbs.
---Shrimp	1.98 lbs.	1.90 lbs.
Canned:	5.2 lbs.	4.9 lbs.
---Tuna	3.3 lbs.	3.2 lbs.
---Salmon	0.6 lbs.	0.6 lbs.
---Shellfish	0.5 lbs.	0.4 lbs.
---Sardines	0.3 lbs.	0.2 lbs.
Cured	0.3 lbs.	0.3 lbs.
Farm-raised catfish	195 million lbs	150 million lbs.
Per-capita consumption	0.4 lbs	0.3 lbs.
Surimi analogs	90.4 million lbs	61.8 million lbs.

Sources: NMFS, NFI, AFDF, USDA

MILK & DAIRY PRODUCTS

The year 1985 was a mixed bag (udder?) for the dairy industry. On the negative side, milk production soared to a record 143.7 billion lbs., up 6 percent over 1984 and nearly 3 percent over the previous record set in 1983. Herds grew by 1.8 percent and milk-per-cow surged 4.2 percent. At the end of 1985, USDA projected 1986 milk production to spurt 2 to 5 percent higher than last year and indeed the trend continued into the first quarter with production running 7 to 8 percent ahead of the year-earlier period in spite of support prices averaging $1.00 per cwt lower.

All of this was bad news to taxpayers: The Commodity Credit Corporation last year purchased 13.2 billion lbs. of surplus dairy products, up 4.5 billion lbs. from 1984 (but 3.6 billion below the 1983 record). CCC removals for the first two months of '86 totaled 4.4 billion lbs., well over 2.8 billion for the same period last year, and on March 1 the CCC set a new weekly record by buying 632 million lbs. of surplus products.

But the impact of the herd buyout program, enacted by Congress last December as part of the 1986 Farm Bill, started to register during the second quarter and on June 13 USDA reported that milking cows had declined by 2 percent since January 1 although yield-per-cow was up 3 percent. This prompted USDA to lower its 1986 milk forecast to only 1 percent higher than '85.

On the bright side, commercial disappearance of milk in 1985 surged to a record 131 billion lbs., up 3.3 percent from 1984 and 7.7 percent from 1983, reflecting continued economic growth, more aggressive promotion, rising incomes and falling retail prices. Relative to the Consumer Price Index, retail dairy prices have fallen 13 percent since 1980 and should continue to decline slightly through 1986. "Unless the economy falters, commercial disappearance probably will increase 2 to 4 percent in 1986," said USDA in March. Sales for the first four months confirmed that prediction by running 4 percent ahead of last year.

The Commerce Department (*U.S. Industrial Outlook, 1986*) estimated total value of 1985 dairy shipments at $42.7 billion, up 4.5 percent from $40.8 billion in 1984 and 6 percent from $40.2 billion in 1983. The top four producers captured an estimated 18.3 percent of the total, down 1 percent from a year earlier. Kraft led with a 6.8 percent share, Beatrice was next with 4.6 percent, Borden third with 3.7 percent, Nestle (after its 1984 acquisition of Carnation) fourth with 3.2 percent.

Consumers continue to show concern about fats and cholesterol evidenced in declining consumption of whole milk and rising consumption of low-fat and skim milk.

Total fluid milk consumption, however, remained static at 230.2 lbs. per person, said *Industrial Outlook*. Flavored milks declined slightly, perhaps reflecting lack of acceptance of aseptic milk products. Yogurt, positioned by producers as "healthful," continues to boom. Top four producers of fluid milk products: Southland, with 6.8 percent of sales; Beatrice, 4.6 percent; Borden, 4.3 percent; Dairymen's, 3.6 percent.

Butter, after eroding in favor of margarine from 11 lbs. per capita in 1950 to 3.8 lbs. in 1984, plateaued as new butter/margarine blends became popular.

Total cheese consumption edged up as Cheddar, other American varieties and Cottage cheese dipped slightly in favor of Italian varieties, which gained 2.9 percent. Mozzarella, sparked by the booming pizza market, led with per-capita consumption rising to 4.2 lbs. from 4 lbs. a year earlier. Top cheesemakers: Kraft, with 21 percent of sales; Schreiber Foods, 5 percent; Land O'Lakes, 4 percent; Beatrice, 3 percent.

Consumption of ice cream and other dairy products has leveled off but the premium segment gained with the 1983 acquisition of Haagen-Dazs by Pillsbury and the 1985 acquisition of FrusenGladje by Kraft. Last year, four producers dominated the ice cream and frozen dessert market with 31 percent of sales: Southland, 11 percent; Kraft, 8 percent; Borden, 8 percent; Beatrice, 4 percent.

MILK AND DAIRY PRODUCTS PER CAPITA CONSUMPTION (lbs.)

	1985	1984	% CHANGE
FLUID MILK			
Whole Milk	116.3	122.7	-5.2
Lo-fat milk	84.9	80.8	+5.0
Skim milk	13.0	11.9	+9.2
Flavored milk/ drinks	10.7	10.9	-1.8
Buttermilk	4.3	4.3	0.0
Yogurt	3.9	3.6	+8.3
MANUFACTURED PRODUCTS			
Butter	3.8	3.8	0.0
American cheese	9.5	9.7	-2.0
Cottage cheese	4.0	4.1	-2.4
Other cheese	10.1	9.5	+6.3
Dry whole milk	0.4	0.4	0.0
Non-fat dry milk	1.8	2.0	-10.0
Evaporated/condensed milk	7.8	7.5	+1.3
FROZEN DESSERTS			
Ice cream	18.1	17.8	+1.6
Ice milk	6.8	6.9	0.0
Net milk used per capita	53.9	53.5	+0.7

Source: Milk Industry Foundation

POULTRY & MEAT

After a few years of increased consumption but stifled net earnings, poultry processors are back on the profit track. But for red meat processors, the situation is not so good. Consumption is declining, and industry economics are worsening.

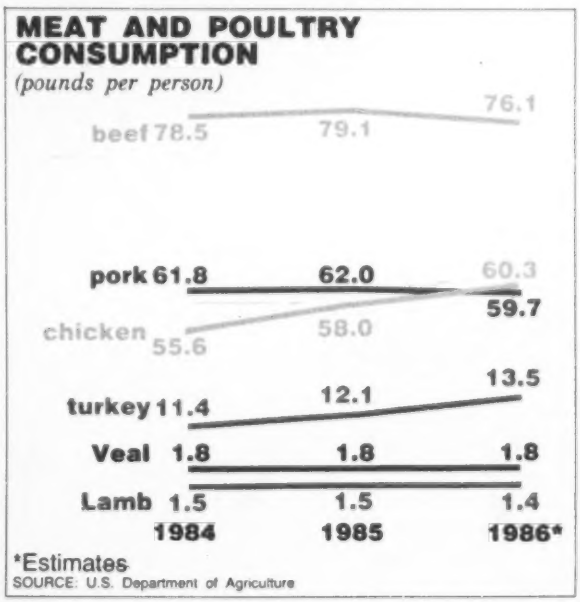
Poultry consumption has risen steadily since 1979. Poultry production grew 5 percent last year and economists predict this trend will continue for the next few years. And even with these larger supplies, retail poultry prices decreased only about 1 percent in 1985—after a double-digit increase in 1984—suggesting strong consumer demand, according to USDA.

Despite this market potential, producers are only beginning to reap benefits, according to the U.S. Commerce Department. Between 1981 and 1983, average profits declined nearly 1 percent compared to previous years. Since then, feed costs declined and overall production efficiency increased substantially, and poultry industry profit margins rebounded to pre-1980 levels of 1.3-2.0 percent of total earnings.

In addition, consumer demand for poultry is increasing—keeping retail prices at 1985 levels and suggesting a strong consumer interest.

Reports USDA: poultry firms are funneling more earnings into product development and marketing. A "new-wave" of convenience chicken items has entered the market, including Tyson premium chicken entrees, sticks and chunks and "Perdue Done It!" fresh-prepared nuggets, cutlets and tenders. The $375-million further-processed poultry market, adds National Broiler Council Economist Bill Roenigk, has doubled in the last five years and now accounts for about 20 percent of the poultry industry.

Why such growth? "There is great demand for convenience foods," says a Perdue spokeswoman, "and poultry is the better buy." Economists agree: retail poultry prices are much lower than red meat prices, due to widespread production efficiency advances.



The setting for 1987? Poultry firms can look forward to large supplies and cheap feed prices, product prices in excess of production costs and a rising U.S. economy—according to USDA economists.

Beef prices should increase. The reasons:

• Herd liquidations will stop. Because of poor returns to livestock producers, and thus their need to generate cash flow, farmers "liquidated," or slaughtered, many herds in 1983-85 to receive government subsidies. This year, herd liquidations are phasing out—a factor experts predict will tighten supplies, increase beef prices and decrease producer profit margins. And economists agree: higher prices and tight supplies predictably mean decreased demand.

• Cattle feed supplies are low, a condition that causes feed prices to increase.

The total red meat price increase, however, will be a "constrained" 3-5 percent for 1986 over 1985, says USDA, since other price-altering factors—consumer purchasing power, sensitivity to relative meat prices, and tastes and preferences—are expected to remain relatively unchanged from last year.

A predicted 1.3-percent decrease in 1986 red meat supplies, however, will ultimately reduce this year's red meat consumption by at least 3 percent over 1985, says USDA. And, adds pork-producer Thorn Apple Valley: "All segments of the red meat industry continue to be bogged down with excess production capacity," one factor hurting profit margins.

Since 1984, says American Meat Institute Economist Bill Harold, red meat slaughterers have not met their traditional 1-percent of sales profit margin. In June, 1985, retailers captured 43.4 percent of the retail beef dollar—compared with 39.8 percent last year. But, predicts Harold, the longer-term future will not be so grim for red meat processors.

The red meat industry, he says, has adopted a new marketing orientation that should boost the bottom line: adding value through further processing. "Today you see tighter trims, and deboned and pre-cooked items in the fresh case. Red meat is not a commodity business any more," says Harold.

Swift just introduced *Lite Pork*—a product containing 25-percent less fat than comparable products. Thorn Apple Valley introduced its "lower-salt, no sugar added" pork product line, and a new "Lean 'N Trim" boneless pork product, which the firm believes "represents a growth segment."

U.S. hog inventory is at its lowest point ever, down 9 percent from last year—due to a sharp decline in hog herd liquidations. A decrease in the number of hogs available typically results in higher prices and lower profit margins for processors. Says Harold: "Hog production will increase again during the second quarter of 1987."

ALCOHOLIC BEVERAGES

Beer sales continued flat in 1985. According to The Beer Institute, malt-beverage production edged-up 0.1 percent to 193.3 million barrels from 193 million in 1984. Consumption (taxable removals), however, slipped 0.2 percent from 175.5 million bbls. in '84 to 175.1 million bbls. last year. Beer drinkers seem to be consuming more at home and less away from home: Packaged beer removals increased 0.5 percent to 153.4 million bbls. while draught-beer removals decreased 4.7 percent to 21.8 million bbls. Per-capita consumption of malt beverages, after reaching an all-time high 24.6 gal. in 1981, dropped to 24 gal. by 1984 and plateaued at that level last year. The U.S. Dept. of Commerce estimated 1985 value of malt-beverage shipments at $12.1 billion, down 0.4 percent from '84.

BEER SHIPMENTS 1985

Millions of barrels shipped, top six U.S. brewers

Brewer	1985	1984	%Increase/ Decrease
Pabst	9.1	11.8	-23%
Coors	14.7	13.2	+11%

Source: Business Trend Analysis

Light beers continue to gain market share, moving-up from 19.1 percent of total beer sales in '84 to 20.3 percent last year, according to Business Trend Analysts. Miller *Lite*—the top-selling light beer and the No. 2 brand (after Budweiser) among all beers—achieved higher volume in '85, and Anheuser-Busch reported that its three light beer brands surged 22 percent last year. But the American beer drinker still prefers some bite in his brew: Analysts see slow acceptance of light alcohol beers, which niched 0.3 percent of the market in '84 and remained at that level in '85. Anheuser-Busch's *LA* brand dominates this segment, too, with 70 percent of sales. Coors, Stroh and Heileman tapped a new market last year with malt coolers positioned against wine coolers. Coors learned what it needed to know, took its *Colorado Chiller* back to the drawing board after a three-month test and "remains committed to the segment," said a spokesman. Watch for it to return. Two new no alcohol "beers"—*Kaliber* from Guiness and *Barbican*, also made in the U.K. and imported by Stroh—joined several Swiss and German entries in the no alcohol segment, which surprisingly picked up 0.3 percent of the beer market in '85 and continued to grow into early '86, says David Whitman of Business Trend Analysts. In the draught segment, Miller introduced *Genuine Draft*—non-refrigerated in bottles via a "unique cold-filtration process"—to test markets in '85 and national rollout is now in progress.

U.S. Wine Consumption

(Millions of Gallons)

Type	1985	1984
Table wines	377.3	401.3
Dessert wines	34.3	37.7
Champagnes, sparkling wines	45.6	47.0
Vermouth	6.9	7.0
Special natural wines	26.8	27.2
Wine coolers	86.2	34.2
Total	577.1	554.4
Per capita consumption (gal.)	2.42	2.35

Source: The Wine Institute

Anheuser-Busch boosted its share of a flat market by another 2 percent in 1985 to 36.6 percent of U.S. beer sales—"40-percent market share by the late 1980s," said Chairman August A. Busch III. At the same time, Coors scored a remarkable 11 percent gain in shipments in 1985 through geographic market expansion and increases in California and Texas.

According to The Wine Institute, per-capita wine consumption grew 3.4 percent last year. As shown above, however, the gain was entirely due to wine coolers— which surged 155 percent to 86.2 million gal. from 34.2 million gal. a year earlier—while consumption of wine per se declined in every category. Consumption of American wines grew 2 percent at the expense of imports, which fell 2 percent. California wines entering distribution in 1985 were up 0.7 percent; wines from other states gained 1.3 percent.

According to the Distilled Spirits Council of the U.S. (DISCUS), consumption of distilled spirits—after peaking in 1981 at 450 million gal.—declined for the third consecutive year to 426.1 gal. in 1984 and the slide continued into '85. Per-capita consumption steadily declined from a high of 2.88 gal. in 1974 to 2.46 gal. in 1984, down 1.3 percent from '83. Higher federal and local "sin" taxes contributed to the decline. Whiskey sales fell 5 percent in '84 from a year earlier, with domestic down 8 percent and imports by 2.2 percent. Even blended whiskies dropped, but in line with the trend toward lighter drinking the decline slowed to 0.5 percent. Among imports, only Canadian whiskey gained (4 percent) while Scotch fell 9 percent. Vodka and gin, both domestic and imported, also declined. One bright spot: Cordials rose 12 percent, with domestic up 15.1 percent and imports up 7 percent. Distillers, too, hope to boost sales by riding the cooler wave. One example: *Schnapps Spritz*, a fruit-flavored 5.5-percent alcohol beverage from Fletcher & Oakes.

BREAKFAST CEREALS

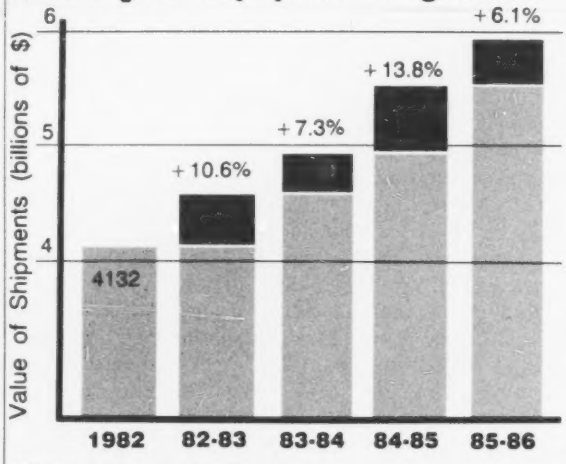
Breakfast cereal manufacturers can see the dawn of a new marketing era. After the turmoil of the past 10 years, the industry seems to have nothing ahead but smooth, steady growth.

Consider: Most cereal manufacturers have changed their products' image from one of sugar-laden, tooth-rotting junk to one of healthy, natural, nutritious food products. Many new cereals are enriched with fiber, sweetened with aspartame and/or contain real fruit. And even sugar-containing cereals contain less sugar than before.

The public has responded to this effort by buying more cereal than ever before. Other consumer trends may have helped, though. The growing interest in fresh fruits, for example, which are eaten with many cereals, and the turn away from high-fat and high-cholesterol products such as bacon and eggs, may have affected the type of breakfast being eaten today.

Whatever the reasons, the cereal market looks strong and should stay that way. What it all adds up to is a growth market for manufacturers who can adapt quickly to changing consumer tastes.

Breakfast Cereal Market Continues Strong . . . despite leveling off in population growth



SOURCE U.S. Dept. of Commerce estimate

In 1985, estimates Commerce Department's William V. Janis, Office of Consumer Goods, about 1.8 percent—or $5.6 billion—of all food shipments were cereal breakfast foods. And the industry's real gain in shipments, about 8.2 percent, was the largest since 1973. There were several reasons for this gain, Janis says. Most production costs either declined or rose only slightly, for instance, helping to hold producer prices down. And, of the eight principal ingredients used in producing breakfast cereals, only flour and prepared flour mixes recorded a slight rise in 1985.

On average, retail prices for all breakfast cereals increased about 5.5 percent in 1985—the same change as in 1984—while prices of all food rose 2.9 percent. Producer prices for corn meal, grits, and hominy fell 4.4 percent, while prices of all other hot cereal gained 2.6 percent. That may reflect a change in regional tastes, toward conformity with national preferences. Producer prices for cold cereals, the major breakfast cereal segment, rose 5.5 percent over 1984.

Recently published Bureau of Census data show that many consumers have gradually changed their breakfast food preferences. While total per capita consumption of cereals rose about 2.9 percent in 1985, to 14 pounds, that growth varied by type of cereal. Cold cereal, for example, gained 2.1 percent, reaching 9.8 pounds per capita, while corn- and wheat-based ready-to-serve products both advanced 3 percent, to 3.3 pounds per capita. Meanwhile, oat- and rice-containing cereals were static at 1.6 and 1.2 pounds, respectively. Hot cereals fared slightly better, up 3.3 percent in per capita consumption, to 3.1 pounds. Consumption of farina and other wheat breakfast food moved up 20 percent, to 0.6 pounds per capita, while oatmeal remained unchanged at 2.5 pounds.

In 1986, breakfast cereal shipments should increase 3.5 percent—although mid-year data from SAMI indicates this estimate may be too modest. Stable ingredient costs will help to hold down increases in consumer prices. Per person consumption of all breakfast cereal will probably rise 3.1 percent in 1986, with consumption of all cold cereal matching that increase and corn-based cold cereals remaining unchanged. Per person consumption of wheat, rice, and oat cereals should rise 2.9 percent, 7.7 percent and 5.9 percent, respectively. By comparison, consumption of hot cereals should gain 3.2 percent.

During 1985-1990, says the Commerce Department, the value of breakfast cereal shipments should expand 2.5 percent annually, while total population will increase 0.9 percent per year. Estimated per capita consumption of all breakfast cereal will gain 2.3 percent per year. And, since demand will grow slowly while consumer tastes and purchasing patterns are changing rapidly, we can expect a steady flow of new products to keep pace with changing tastes.

Sales of presweetened cereal should increase as the number of children aged 5-14 grows at a rate of 1.6 percent a year. The use of nonsugar sweeteners will probably increase, too. From 1985 to 1990, the population aged 20-49 should continue to prefer unsweetened cold cereal. Firms also are expected to incorporate more fruits and nuts into their products.

Demand for hot cereal also may increase. Children aged 5 and under and persons aged 65 and over, the main consumers of hot cereal, will likely contribute to an estimated 2.4 percent yearly increase in per capita consumption of hot cereal. Although the population of children aged 5 and less will rise only 0.5 percent annually, the affluent elderly will gain in numbers by about 2 percent a year.

CANNED FOODS

Sales of canned food (or food preserved by heat processing) began to increase in 1985 after being sluggish for the past few years. The increase was not a dramatic one, though. Canned speciality foods were among the items showing the largest sales gain. Aseptic packing has also boosted sales of canned foods.

"The value of production of canned fruits, vegetables, and specialties rose to an estimated $22.4 billion in 1985," according to *U.S. Industrial Outlook 1986.* After adjusting for price changes this reveals a 2.2 percent production increase which is the first meaningful increase since 1978.

The Outlook went on to point out that most of the real growth was attributable to increased demand for aseptically packaged foods, sauces, and ethnic foods. "Consumer demand for most canned goods remained sluggish; shoppers apparently prefer fresh and frozen goods," continued the report. Canned single serving soups, and canned foods with low sodium or sugar content also are doing well.

But customer demand is not the only factor, much of the flux in canned fruit and vegetable production can be attributed to availability of crops in any given year. For example, the decline in processed vegetables between 1984 and 1985 is largely attributable to an 8 percent reduction in annual tomato acreage, Shannon R. Hamm, Agricultural Economist pointed out at the Annual Agricultural Outlook Conference, last December in Washington D.C.

On the other hand, the other three major processing vegetables – sweet corn, green peas, and snap beans – are up an average of 7 percent. This is translating into larger 1985/86 packs of these vegetables, while domestic tomato pack will be reduced. Imports of processed tomatoes will partially offset reductions in domestic supply.

"The important issues for vegetable producers become: (1) the future growth in demand for vegetables, and (2) the continuing response of imports to the strong relative dollar in competing nations," Hamm concluded.

In the area of canned fruits, the increasing popularity of fresh fruit as a popular snacking item has contributed to the sluggish sales. Although wholesale prices of most canned fruit were higher at the beginning of 1986 than a year previously, prices could be reduced to stimulate sales.

Commodity items are not the only type of canned foods showing sluggish growth, another area of canned foods with low growth is soup where growth has been just 2 percent a year since 1983, reports Outlook. The real growth for soup has been in the dry mix area which is growing at 14 percent a year.

Campbell Soup Co., the country's leading canned soup producer, now offers dry and frozen soup lines. The company did boost its 1985 canned soup sales with several new product introductions. The new *Gold Label* line of *Creamy Natural Soups* was rolled out nationally in 1985, and the *Home Style Soup* line was expanded during the same year.

Canned Foods

Pounds (in millions)

1982	1983	1984	1985	
988	989	964	940	Pork & Beans
532	526	535	527	Pasta
234	244	240	240	Chili
105	118	127	129	Beef Stew

Information provided by Selling Areas Marketing, Inc. (SAMI)

Cases (in millions)

1982	1983	1984	1985	
59.5	50.1	56.2	55.2	Golden Corn
33.1	29.1	32.6	32.5	Tomatoes
20.5	20.6	23.3	29.1	Peas
2.4	2.3	2.6	2.8	Asparagus
0.9	1.0	1.1	1.3	Peaches

Information provided by the National Food Processors Association.

Sales of canned pasta, pork & beans, chili, and beef stew have not shown any significant changes over the past four years. Chesebrough-Ponds Inc. is hoping that its 1985 introduction of *Ragú Pasta Meal* in glass jars will contribute to sales growth in 1986.

One method used by the canned food industry to battle sluggish sales has been to establish a marketing program. It is sponsored by the industry under the canned Food Information Council, and marks the first time that various segments of the industry have joined together to communicate positive information about canned products. The program recently launched its third year with a $2 million advertising and public relations effort.

"Our goal is to reach the consumer with an integrated advertising and public relations message that canned foods are high quality, convenience products that meet the needs of contemporary consumers," said John Porter, Vice President of Dole Processed Foods Company and Chairman of the Canned Food Marketing Committee.

FROZEN FOODS

The increasing number of women in the work force continues to be a major driving force behind accelerating frozen food sales. But a close examination of frozen food sales during late 1985 and early 1986 reveals changes in the buying patterns established several years ago.

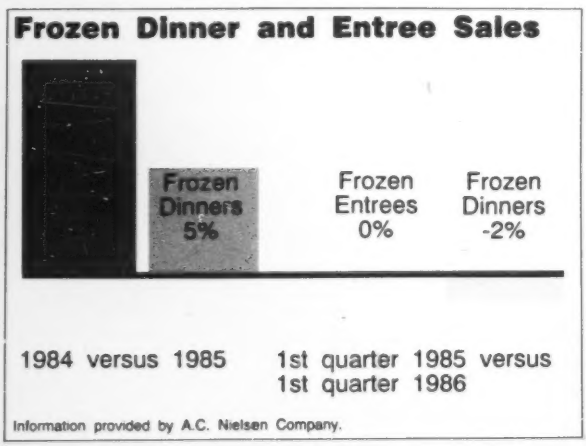
The market for frozen entrees, which exploded in 1982 when Stouffer Foods' *Lean Cuisine* captured $125 million in sales during its first year in national distribution, is no longer sustaining double digit increases. Tracking of frozen entree sales by A.C. Nielsen reveals a slowing of growth beginning in late 1985 and early 1986. Frozen entree sales for December 1984 through November 1985 reached $2.4 billion—or a 17 percent increase over the previous year, reports Nielsen. But sales for the first quarter of 1986 (December 1985 through March 1986) are even with sales for the same time period one year earlier.

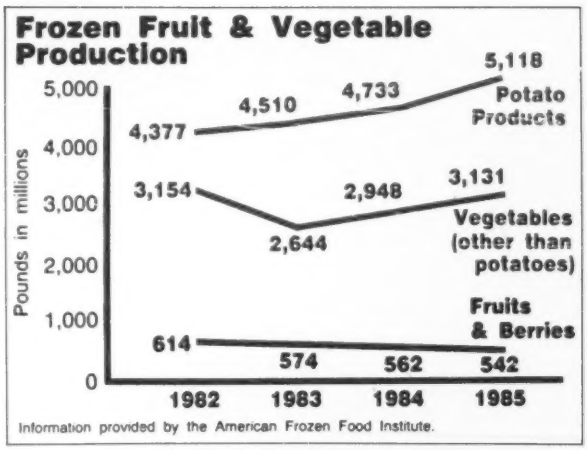
Frozen dinners sales are also slowing. Reaching $1.2 billion in sales during 1985, or 5 percent growth from a year previously, frozen dinner sales registered a -2 percent growth for the first quarter of 1986.

This shakeout was expected, although the exact timing was not known. "One possible problem which could arise is in terms of freezer space at retail food outlets...The limited space, coupled with a glut of new entries into the market, should bring about a shakeout in the near future," predicted Business Trend Analysts, Inc. (BTA) in its report, *The Market for Frozen Dinners and Entrees*.

This is not to say that frozen dinner and entree sales will not continue to rise, but the rise will not be as rapid as in the past. Many of the reasons for the popularity of these items still exist. In particular, time constraints which have made frozen meals coupled with microwave ovens an increasingly popular phenomenon, will continue to be a driving force as the number of women in the work force grows.

"People have displayed a willingness to pay good money to make food preparation as painless as possible," states the BTA report. This is also seen by looking at microwave ovens usage. Microwave ovens are in use in 40 percent of the U.S. households, with an expected increase to 75 percent by the turn of the century, predicts Business Communications Co., Inc.


Frozen Dinner and Entree Sales
Frozen Dinners 5%
Frozen Entrees 0%
Frozen Dinners -2%
1984 versus 1985
1st quarter 1985 versus 1st quarter 1986
Information provided by A.C. Nielsen Company.



While frozen entree and dinner sales are no longer increasing at double digit rates, frozen breakfast sales are. Introduced in many cases to compete with fast food chain items, frozen breakfast entree sales for 1985 were up 29 percent from 1984 according to Selling-Areas Marketing, Inc. (SAMI). Frozen breakfast entree include french toast, pancakes, quiche, and toaster items.

The excitement in frozen food sales is clearly in further processed, value added foods rather than in commodity items like various fruits and vegetables. But these items do play an important role in the frozen food industry. For example, today American are eating about 11 pounds of frozen vegetables per person per year—up from 9.6 pounds in 1970, according to the October 1985 issue of FDA Consumer. Although approximately 30 different vegetables are available, still corn, broccoli, peas, and snap beans account for half of the total consumption. In contrast to increased frozen vegetable consumption, frozen fruit consumption has declined steadily.

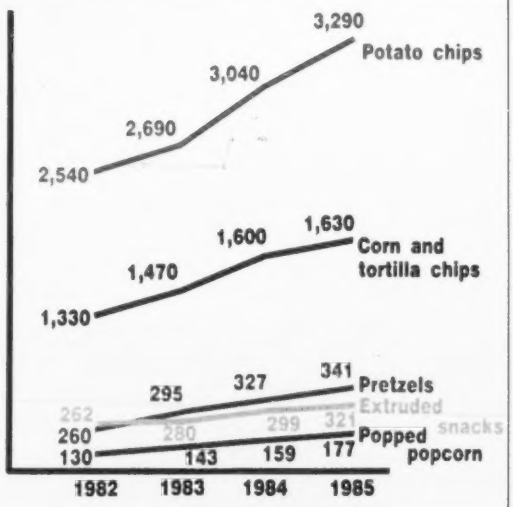
And consumption of frozen potatoes has jumped more than fourfold over the past two decades, reports the FDA Consumer. This is mainly due to the increased use of frozen French fries, hash browns, and other frozen potato products in food service outlets.

Frozen French fries are the most popular frozen potato item. They accounted for 4,384 million pounds of the 5,118 million pounds of frozen potato sales in 1985, according to the American Frozen Food Institute. And, of the 4,384 million pounds of frozen French fries sold in 1985, 3,907 million pounds were sold to food service establishments.

The overall frozen food market should continue to grow—especially since expected growth of one- and two-person households, and number of women in the work force are expected to grow.

SNACK FOODS

Snack Foods Sales Volume (in million dollars)



Information provided by Potato Chip/Snack Food Association.

Snack food sales—including potato chips—are rising despite the emphasis on good health and nutrition. In fact, potato chips showed an 8.2 percent increase in sales from 1984 to 1986 which was second only to popped popcorn in the salty snack area.

Greg Overman of Frito-Lay gives several reasons for potato chips' popularity. "People's eating habits have changed. Fewer families sit down to meals, leading to more grazing or eating on the run, and potato chips offer consumers convenience."

A new study by MRCA Information Services, Stamford, CN, confirms that eating habits are changing. Between 1977 and 1985, the number of people eating lunch at home dropped 18 percent from 51 million to 42 million. The study pointed out that this occurred despite a growth in population. Many of these lunch skippers are likely to eat some type of snack during the day.

As consumers continue to eat smaller, more frequent meals and supplement their diet with snacks, potato chip consumption is expected to continue its climb. Business Trend Analysts predicts that the "chip" industry will grow at a compound annual rate of 9 percent through 1990.

Frito-Lay's Overman credits new product introductions for part of the growth within the potato chip category. While regular chips represent about 78 percent of total potato chip dollar sales, flavored chips represent the highest growth segment. No-salt potato chips have found a small niche with 5 percent of chip sales.

Pricing strategy is critically important to the success of the snack food industry, according to Frost & Sullivan. This is because snacks do best when prices of snacks rise less than other consumer goods. F&S predicts that the overall salted snack food industry will see moderate growth, and that product category growth will depend on development of new products, pricing strategies, and overall demographic and economic trends.

In the area of warehoused canister snacks, Pringles is the category leader with 50 percent market share. This segment of snack foods represents about $295 million a year in sales. Shoestring potatoes account for $40 million or about 14 percent.

Pretzel sales only increased 4.3 percent in sales from 1984 to 1985. But dieters ate 59 percent more pretzels in 1984 than in the early 1980s, according to a Menu Census study. The study by MRCA Information Services compared eating behavior of dieters and non-dieters, both at home and away from home. Pretzels are baked in an oven rather the fried in oil like chips and extruded snacks, and this may account for their appeal to dieters.

Health consciousness is having its effect on the snack food industry, though. Many people are turning to "natural" snacks. But these sales are in addition to salty snack sales rather than detracting from them. For example, Americans spent $600 million on fruit snacks alone in 1985, reports Del Monte.

"Del Monte has long been a leader in the production of dried fruit—traditionally used seasonally, mostly as an ingredient in cooking," said Ted Taft, a marketing director at Del Monte USA. "We've taken that product, added convenient packaging and variety, and produced a high quality snack that fits with a modern lifestyle."

Del Monte USA first introduced Fruit Snacks a year ago in two varieties—fruit mix and yogurt covered raisins. Six varieties including Sierra Trail Mix, Pineapple Nuggets, Tropical Fruit Mix, and Strawberry Yogurt Covered Raisins are now available.

"The instant popularity of fruit snacks snack category points to a growing demand on the part of the public for nutritional and convenient snacks that deliver taste and variety," Taft added.

Raisins have always been a popular fruit snack. And they continue to be, even though the Food Institute Report quoted trade estimates for California raisin production at 300,000 tons this year, down from 360,000 tons last year.

Sun Diamond Growers, a co-op comprised of walnut, raisin, prune, fig, and hazelnut growers, reports that the tonnage of products sold in 1985 was the highest ever, yet sales revenue and net proceeds were the lowest ever. Lower priced foreign imports are the main reason for this. Sun Diamond did recently receive a concession from the union which reduced base pay and fringe benefits of the workers by 35 percent, though. In addition, the company plans on focusing more on value-added products which contain its basic commodities and are sold under its own brands.

BAKERY PRODUCTS

For a market that grew only .5 percent in 1985, the situation for bakers is surprisingly good.

U.S. Department of Commerce economists predict industry growth will pick up to about 1.5 percent yearly into 1990.

Raw material costs have been stable since early 1985 and will remain so for 1986, predicts American Bakers Association President Bob Wager. A 1985 ABA survey concluded that these stable prices helped to increase bread bakers' pretax profits by 4.6 percent on a single one-pound loaf—their largest profit margin since 1977. In fact, in 1985, prices for nine out of ten principal baking ingredients declined or remained stable, says the U.S. Department of Commerce. Only shortening edged up 1.5 percent over 1984.

Certain segments within the bakery market, too, show much promise for growth: variety breads, specialty items, soft cookies, and refrigerated/frozens.

In the $5.4-billion dark-bread industry, per capita consumption rose 5.9 percent annually between 1977 and 1984; in 1985, consumption rose 1.1 percent to 8.9 pounds per person. Rye and pumpernickel bread consumption has been level for two years.

According to a Ph. Orth Company baking industry survey conducted at the 1985 International Baking Industry Expo, 74 percent of those surveyed feel variety bread sales will continue to grow. Respondents also felt that "new lines will be added" to the variety bread category, and that whole or multi-grain breads hold the most potential to grow in sales.

Ph. Orth survey respondents also strongly agreed: specialty items (muffins, biscuits, cookies and croissants) have the "greatest demand for new product development and the highest potential for bakery sales." Fifty percent think the croissant, in particular, will enjoy continued sales growth.

The cookie market, too, is growing. In 1985, shipments in the $3-billion cookie market advanced 4.4 percent, according to the Commerce Department. Frost & Sullivan predicts the cookie category will grow about 2 percent per year in volume into 1990.

Soft cookies seem to be faring best. According to the Commerce Department, soft cookie introductions have cannibalized the sandwich cookie segment. Sandwich cookies, which held 31 percent of the cookie market in 1977, how hold about 26 percent. Other cookie types—including soft cookies—held 65 percent in 1977 and now comprise 70 percent.

Industry sources estimate 1985 shipments of refrigerated and frozen bakery products sold directly to consumers totaled $1.6 billion. Commerce Department analysts say this area holds "enormous potential" for food firms. Many top food firms agree. Pillsbury recently introduced its *Crusty Loaf* refrigerated bread dough, a product that capitalizes on the frozen 'convenience' trend. Sara Lee, as well, recently introduced its own frozen bagels to compete with Dart & Kraft's newly-acquired Lender's frozen bagels.

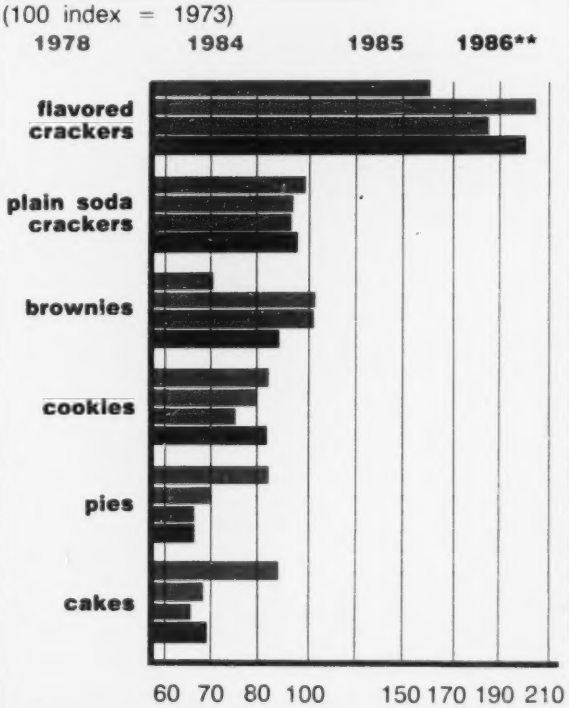
Within the stagnant cracker segment, flavored crackers show the most promise. "Crackers are preferred by adults, and the adult market is growing steadily," says Frost & Sullivan. The firm predicts crackers will score an annual growth rate of about 1.6 percent through 1990, to reach a retail value of about $2.2 billion (in 1984 dollars).

White bread and rolls, which comprise 31 percent of the bakery category, have been losing market share since 1977. Consumption in 1985 decreased 1.8 percent over 1984 to total 26.8 pounds/person. Analysts predict these decreases will slow as the white-bread-eating, over-65 population grows. They are expected to increase 2.1 percent annually. Industry representatives believe, however, that variety breads will continue to be favored over white.

For sweet goods consumed at home, the picture looks dim. Says MRCA Information Services, a research firm: "For dessert, Americans ate 1.9-billion fewer cakes and pies in the last seven years." The number of cakes eaten in one MRCA census study decreased by one-third since 1973. Pies, too, are down substantially. The only gain: individually-wrapped sweet goods, which grew just moderately.

IN-HOME BAKED GOODS CONSUMPTION INDEX*

(100 index = 1973)



*This study estimates eating habits of the U.S. population. To obtain this data, MRCA Information Services studied a 5,500-person representative sample of the U.S. Census.

**Calendar years April through March

SOURCE: MRCA Information Services

CONFECTIONS & DESSERTS

In the confectionery and desserts category, "premium" is where the action is.

For candy makers, this news is both good and bad.

The Bad: Competition from foreign manufacturers is heavy. Since 1982, confectionery imports have risen dramatically. In 1985 alone, U.S. candymakers' share of the domestic market declined about 2 percent, according to the U.S. Department of Commerce. Specifically, the U.S. share of domestic chocolate consumption reportedly declined less than 1 percent while the U.S. share of the nonchocolate market dropped about 3 points.

The value of all candy imports reached an estimated $325 million in 1985, increasing 28 percent from 1984. The reason for this foreign success? After 1982, the dollar appreciated substantially and the U.S. restricted sugar imports—two factors that opened the door for foreign candy makers to undercut domestic manufacturers.

The Good: But since March, 1985, the value of the dollar has been declining. The drop came too late to affect the first half of 1986, but not the second. Retail prices of confectionery imports are now on the rise.

"We expect price increases of imported chocolates to force a leveling off in growth in the super-premium market, which now constitutes 5 percent of the total market for chocolate confections . . . smaller American manufacturers may be able to seize this opportunity to establish themselves in the premium market," says Godiva Chocolatier President Tom Fey.

"Premium" chocolates represent the greatest growth area in the entire $7.1-billion confection industry right now, thanks mostly to an increase in 35- to 54-year-olds, and disposable income. In 1984, the boxed chocolate category (the chocolate segment comprises 65 percent of the entire confection industry) was worth $1.8-billion, and, says research firm Frost & Sullivan, this figure will double by 1990.

The market for highly-expensive, "super-premium" chocolates, however, "seems to be reaching maturity," according to Find/SVP. But, analysts agree, medium-priced boxed chocolates, or just plain "premium" items, will really grow. By 1993, almost one-half of all boxed chocolate consumption will be in the middle-priced segments, according to Find/SVP.

On another note, the $1.5-billion chewing gum market showed "uncharacteristically weak" sales in 1985, according to Warner-Lambert. Sugarless gum, however, is by far the fastest-growing segment, thanks to a proliferation of gums containing aspartame. Says Frost & Sullivan: the sugarless gum segment grew 25-percent last year.

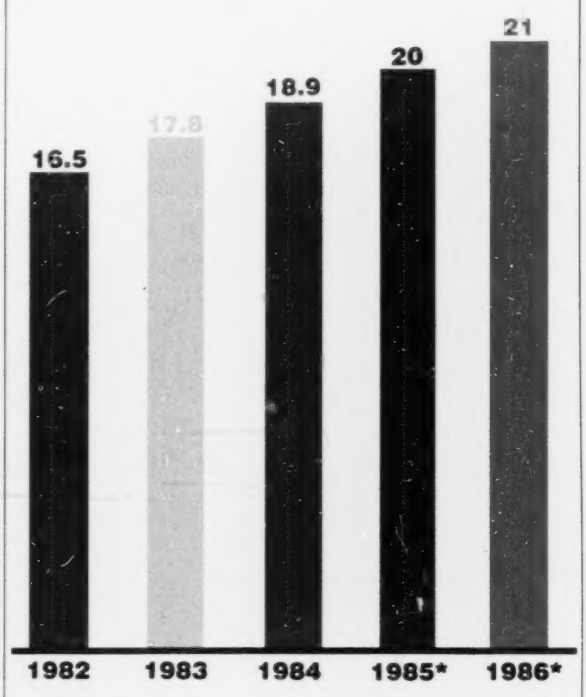
For the many candy producers purchasing sugar, however, prices should remain relatively stable for 1986. At this writing, bulk sugar prices checked in at 23½ cents per pound, and no sharp price increases are expected soon, according to Eiler Ravnholt, Hawaiian Sugar Planters Assn. Predicts Ravnholt: Prices will go up another "½-cent or so."

As in confectionery, the buzzword in the frozen novelty business is "premium."

Frozen novelty producers are enjoying a growing $150-million retail market that is expected to double by 1990, thanks to a proliferation of premium, frozen fruit bars, says Find/SVP. Premium frozen novelties, adds the research firm, are expected to cannibalize the non-premium novelty segment.

CANDY CONSUMPTION

(pounds per person)



*Estimates

SOURCE: Godiva Chocolatier and U.S. Dept. of Commerce

According to A.C. Nielsen Co., the entire frozen novelty market grew 14 percent in 1985 over 1984. MRCA Information Services found, too, that the 5,500 individuals they track substantially increased their consumption of in-home frozen novelties. In this study, the 5,500 people are representative of the U.S. census. "The past few years have seen the entrance of large, well-financed food firms into the frozen snack business," comments the Eskimo Pie Corporation. "And we expect this intense competition to continue in the forseeable future."

Recently, Jell-O embarked on a "shrewd" marketing course and introduced its own fruit bars and gelatin pops—after the extremely successful introduction of its pudding pops some years ago.

DRESSINGS & SAUCES

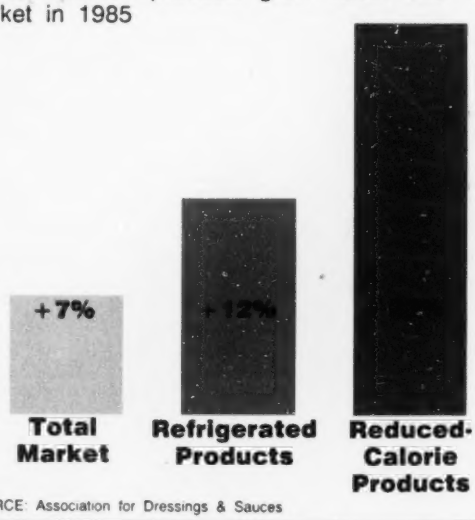
What had been just a product category has grown up. As salad manufacturing is now an industry, so is the production of salad dressings and sauces. And it's a booming industry.

According to The Association for Dressings and Sauces in Atlanta, total 1985 production of dressings and sauces increased 62 percent over 1975 figures to an estimated 445.2 million gallons—about 45 percent of it mayonnaise, 25 percent salad dressing and 30 percent other products. Estimated dollar sales for salad dressing products in 1985 were set at more than $2.6 billion. Forty-five percent of those sales were retail, 55 percent were foodservice.

What's more, the future looks as bright as the present for this new industry. "Fresh vegetable consumption is expected to increase 35 percent by the year 2000," says Larry Noble, President of T. Marzetti Company and Board Chairman of the Association for Dressings and Sauces. "Fresh fruit consumption will rise 23 percent. And, as all sorts of salads continue to surge in popularity, so will salad dressings."

Sauces, Dressings on Rise

Reduced-calorie products grew faster than total market in 1985



SOURCE: Association for Dressings & Sauces

Noble points out that "Consumers now accept that a salad can be hot or cold, served as an appetizer, entree, side dish or dessert. In effect, salad time is any time." Salads are on almost every menu, he says, whether at home or away from home, in outlets from fast food to white tablecloth. "And there's a dressing right there beside every one served."

The most recent figures available support this view. Per capita consumption of salad dressings has increased 48 percent since 1975. Last year, on average, we each consumed 14.9 pints of salad dressing—up from 10.1 pints in 1975. And a lot of that increase was new types of dressings.

For example, 12-week data from Selling Areas-Marketing Inc. in early 1986 showed that low-calorie salad dressings tonnage gained 23 percent, while refrigerated salad dressings and sauces rose 12 percent in the same period. The category as a whole increased about 7 percent—or over 25 million gallons.

Those figures are backed up by many consumer research studies. A *Better Homes and Gardens* survey, for example, found that 82 percent more consumers are more calorie/weight conscious today. And 53 percent are eating more salads. A Gallup poll conducted for *American Health* reports a trend toward vegetarianism, and a survey by Vance Research Services shows that nearly one-third of surveyed households said they ate more fresh vegetables than they had the year before. Salad bars are popular with 60 percent of restaurant patrons, says another Gallup poll, especially the self-service feature. Also, says the Brown Bag Institute, salads (pasta, fruit or green) are very popular among brown-baggers today.

Foodservice sales are sharing the strong action. A 1984 study by the National Restaurant Association found main dish salads were the sixth fastest growing menu item with 31 percent more restaurant patrons ordering them in 1984 than in 1982.

French, Thousand Island, Italian, Blue Cheese and Oil & Vinegar, respectively, remained the most popular non-diet menu dressings in 1985. Sweet & Sour and low-calorie dressings led the pack in terms of growth as a popular menu item followed by buttermilk-based, Caesar and Creamy Garlic.

Eating trends uncovered by these and other studies included an increased interest in nutritious foods, shifts to more roughage, less consumption of cholesterol, and a marked increase in "grazing." Salads and flavorful dressings supply the "natural" solution to these consumer concerns and desires.

In response to this growing interest in "fresh" foods, many manufacturers have introduced refrigerated dressing lines that are as fresh as the salads. In keeping with the low-cal craze, "light" versions of refrigerated lines are being introduced. And, prompted by the continuing popularity of bleu cheese dressing, many manufacturers have new cheese dressings on the market, such as Creamy Parmesan, Italian with Cheese, and Romano, etc. Buttermilk-based products are also moving up strongly in this category.

Condiment manufacturers are making strong advances into the gourmet/specialty foods market also. Whole seed and flavored mustards, flavored mayonnaise and oils such as barbecue basters and dressings positioned as dips and marinades are finding their way onto gourmet shelves and into specialty shops.

"Right now," sums up Noble, "dressing manufacturers are meeting consumer needs by introducing new category segments such as reduced-calorie, refrigerated and more cheese flavors. And, with new packaging techniques such as the squeezable plastic bottle, how can our industry do anything but prosper?"

Insert 51 or see FEM, p. 380 →